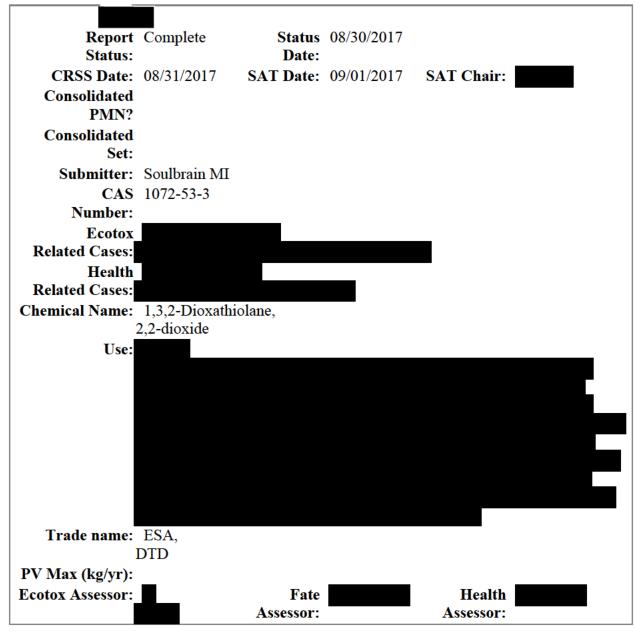
## **SAT Report for Case # LM-17-0030**

#### General



# **Physical Chemical**

### Information

Molecular 124.12 Weight:	Physical State - Neat:	Solid		
Percent 500:	Percent 1000:			
Melting Point 96.00 - (Measured): 99.00	Melting Point (est):		MPD (EPI):	
Vapor	Vapor	0.04	VP	
Pressure:	Pressure (est):		(EPI):	
Water	Water	382	Water	
Solubility:	Solubility		Solubility	
	(EST):		(EPI):	
Log			Log	
Kow:			Kow (EPI):	
Log	Log P			
P:	Comment:			

### **SAT Concern**

Ecotox Rating 2	Ecotox	PMN substance
(1):	Rating	
	Comment	
	(1):	
<b>Ecotox Rating</b>	Ecotox	
(2):	Rating	
	Comment	
	(2):	
Health Rating 2	Health	
(1):	Rating	
	Comment	
	(1):	
<b>Health Rating</b>	Health	
(2):	Rating	
	Comment	
	(2):	

## **PBT Ratings**

Persistence	Bioaccumulation	Toxicity	Comments
3	1	2	

```
Exposure N
Based Review
(Health)?
Exposure Based N
Review
(Ecotox)?
SAT SEVER IRR/CORR.E, S, L, SENS, ACUTE,
Keywords: LIVER, DEVEL, MUTA, ONCO, AQUATOX.
```

```
Fate Assessment M-17-0030
      Summary: FATE:
                 Solid with MP = 96-99 °C (M)
                 \log Kow = -0.90 (E)
                 S = 382 \text{ mg/L} at 25 °C (E)
                  VP = 0.04 \text{ torr}
                 at 25 °C (E)
                 BP = 209 \, ^{\circ}C \, (E)
                 H = 1.15E-6 (E)
                 log Koc = 0.97
                 (E)
                 \log Fish BCF = 0.5 (3) (E)
                 \log Fish BAF = -0.047 (0.9) (E)
                 POTW removal (%) = 0-25
                 Time for complete ultimate aerobic biodeg
                 Sorption to soils/sediments = low
                  Volatilization half-life
                 from a standard river = 570 hrs
                 Volatilization half-life from a
                 standard lake = 260 da
                 Atmospheric Oxidation Half-life = 120 hr via OH
                 radical
                 PBT Potential: P3B1
                  *CEB FATE: Migration to ground water =
                 rapid
                 Bioconcentration factor to be put into E-FAST: 3.2
                 PMN
                 Material:
                 Overall wastewater treatment removal is 0-25% due to low
                 biodegradability, low sorption and low stripping.
                 Sorption to sludge
                 is low based on the estimated physical-chemical properties from EPISuite
                 and analogous chemicals.
```

Air Stripping (Volatilization to air) is

negligible based on the estimated Henry's Law Constant.

Removal by

biodegradation in wastewater treatment is negligible based on BIOWIN model

estimates and analogous chemicals.

The aerobic aquatic biodegradation

half-life is months based on BIOWIN model estimates and analogous chemicals.

The anaerobic aquatic biodegradation half-life is greater than months based on the aerobic biodegradation half-life. The anaerobic biodegradation half-life is projected to be greater or equal to the aerobic biodegradation half-life.

Sorption to soil and sediment is low based on the estimated PCKOC model estimates and analogous chemicals.

Migration to groundwater is

rapid based on the estimated PCKOC model estimates and analogous chemicals.

PMN Material:

High Persistence (P3) is based on the

anaerobic biodegradation half-life and analogous chemicals.

Low

Bioaccumulation potential (B1) is based on BCFBAF model estimates.

Bioconcentration/Bioaccumulation factor to be put into E-Fast: BCF:

3.2

NOTE: The chemical may be inherently biodegradable.

Removal in 0-25

WWT/POTW

(Overall):

Condition	Rating Values	Comment
	w/ Rating Description	
WWT/POTW	1	
Sorption:		
WWT/POTW	4	
Stripping:		
Biodegradation	4	
Removal:		
Biodegradation		
<b>Destruction:</b>		
	3	

Condition	Rating Values	Comment
	w/ Rating Description	
Aerobic Biodeg		
Ult:		
Aerobic Biodeg		
Prim:	4	
Anaerobic Biodeg Ult:	4	
Anaerobic Biodeg		
Prim:		
Hydrolysis (t1/2		
at pH 7,25C) A:		
Hydrolysis (t1/2		
at pH 7,25C) B:		
Sorption to	4	
Soils/Sediments:	4	
Migration to Ground Water:	4	
Photolysis A,		
Direct:		
Photolysis B,		
Indirect:		
Atmospheric Ox		
A, OH:		
Atmospheric Ox		
B, O3:		

#### Health

#### Assessment

Health Summary: Absorption is nil through the skin as the

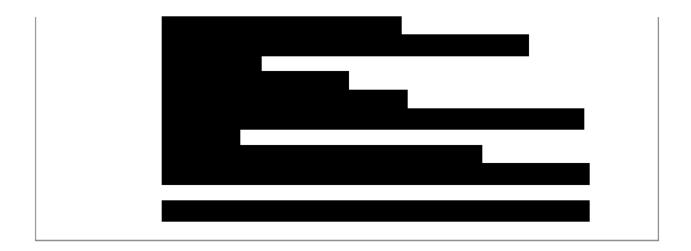
neat material and moderate when in solution and moderate absorption through the lung and GI tract (pchem). The PMN is a potential alkylating agent. Available data suggest mutagenicity concerns and severe irritation and corrosion to eyes and skin and likely other tisssues such as mucous membrances and lung. Based on the alkylating potential of the LVE modification, there are also concerns for respiratory and dermal sensitization, acute effects, liver toxicity, developmental toxicity, and oncogenicity.

Routes of Dermal Drinking Water

**Exposure:** Inhalation

#### **Test Data Submitted**

Test Data
Submitted:



Ecotox Assessment

Test organism	Test Type	Test Endpoint	Predicted	Measured	Comments
Fish	96-h	LC50	>		
			100		
Daphnid	48 <b>-h</b>	LC50	>		11
-			100		"
Green Algae	96 <b>-h</b>	EC50	> 100		" "
Fish	-	Chronic	>		" "
		Value	10		
Daphnid	-	Chronic	>		" "
-		Value	10		
Green	-	Chronic	> 10		" "
Algae		Value		-	

Factors	Most Sensitive Endpoint	Assessment Factor	СоС	Comment
Acute		5	5000	Acute/Chronic; Based on algae
Acquatic:				$\operatorname{ChV}$
Chronic		10	500	Acute/Chronic
Acquatic:				

Ecotox Route of No releases to Exposure? water

Factors	Values	Comments
SARs:	Esters	
SAR	Esters	
Class:		
TSCA NCC	Esters	
Category?		

### **Recommended Testing**

#### **Ecotox**

#### Value Comments

Predictions are based on QSARs for esters (ECOSAR V2.2); MW 124; Log Kow = -0.90 (P); solid with a MP = 99C (M); S = 382,000 mg/L (P); effective concentrations based on 100% active ingredients and mean measured concentrations; hardness <150 mg/L as CaCO3; and TOC <2.0 mg/L.

#### **Ecotox Factors Comments**

Environmental Hazard: Environmental hazard is relevant to whether a new chemical substance is likely to present unreasonable risks because the significance of the risk is dependent upon both the hazard (or toxicity) of the chemical substance and the extent of exposure to the substance. EPA estimated environmental hazard of this new chemical substance using the Ecological Structure Activity Relationships (ECOSAR) Predictive Model (https://www.epa.gov/tsca-screening-tools/ecological-structure-activity-relationships-ecosar-predictive-model).

Based on these estimated hazard values, EPA concludes that this chemical substance has moderate environmental hazard.

- · Substance falls within the TSCA New Chemicals Category of Esters.
- · SAR chemical class of esters.
- · Moderate hazard based on acute and chronic COCs of 5,000 and 500 ppb, respectively.

#### Environmental Risk:

· Risks were not identified.

#### Testing Recommendations:

· No testing recommended.